

# Straw Towers

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Table Role: \_\_\_\_\_ Section: \_\_\_\_\_

## Background:

Have you ever been to the CN Tower in Toronto, Canada? The Eiffel Tower in France? The Space Needle in Seattle, Washington? Look at these pictures (facilitator should hold up pictures or pass them around). How can something that looks so frail be so tall and sturdy? How does it hold so much weight? Which one do you think is the sturdiest? You are going to attempt the same feat as many architects do by building a tower out of forty straws. Can you make an architectural marvel like the CN Tower?

## Materials:

- 40 straws
- 1 meter of masking tape
- 30 paper clips
- Scissors

## What to do:

You and a partner are going to get only forty plastic straws in which you need to build a tower strong enough to hold a full can of soda using only the materials provided on the table.

1. Play with the straws, but don't build just yet. Draw your design on paper and think about the following questions as you design your tower:

- How are you going to hold your straws together?
- How are you going to spread (or distribute) the weight of the can?
- Do all of your straws have to be the same size?
- How are you going to make your straws stand or balance?

2. After you plan your design, have the Technician get any other materials you may need (scissors, paper clips, tape, etc.) and start building.

3. When you are finished, clean up returning materials and throwing away unnecessary scraps.

4. Come up with a name for your tower and label it using masking tape on the floor nearby.

5. Predict how well you think your tower will hold the soda can and give reasons for your predictions.

Analysis:

1. How did your predictions compare to what actually happened. Why do you think this was so?
2. Were any towers successful? What did the towers that worked have in common?
3. What major differences were there between the towers that worked and the ones that didn't?
4. What adjustments would you make to your tower?
5. Why do you think certain materials are used to build over others?
6. Why do you think towers are built? What is their purpose?